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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,214	04/20/2001	Mitsuru Tanabe	740819-548	9367

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EXAMINER

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ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

838214

Applicant(s)

Tanabe, Mitsuru

Examiner

B. Lee

Group/Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 28 Oct 2002
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-8 is/are pending in the application.
- Of the above claim(s) 5-7 is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-4 ~~5-7~~ is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☒ Claim(s) 1-8 are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 20 April 2001 is/are objected to by the Examiner.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 3
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Applicant's election of Invention I, claims 1-4, 6, 7 in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 5 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 5.

The disclosure is objected to because of the following informalities: Page 7, lines 11, ²12; page 8, lines 14, 17, 20, 23; page 9, line 1: note that the following series of drawing figures (~~2A to 2C; 5A to 5C; 10A to 10D; 11A to 11D; 12A to 12D; 13A to 13C; 14A to 14C~~) should be rewritten as (2A, 2B, 2C; 5A, 5B, 5C; 10A, 10B, 10C, 10D; 11A, 11B, 11C, 11D; 12A, 12B, 12C, 12D; 13A, 13B, 13C; 14A, 14B, 14C), respectively for clarity of description. Page 12, lines ~~14, 17, 24~~, note that --shown in Fig. 3A -- should follow "23", "16A" and "22", respectively. Page 18, line 4 and page 24, line 23, note that reference to "the drawings" needs clarification (i.e. which drawings?). Page 19, line 6, note that --(shown in fig. 5B) -- should follow "41". Page 20, lines 5, 8, note that --(shown in Fig. 6A) -- should follow "43" and "36a", respectively; line 8, note that "36a" should be --36A-- for consistency with the drawing figures. Page 25, lines 5, 12, note that "blocking first" and "blocking third" should be rewritten as --first blocking-- and --third blocking--, respectively. Page 28, line 5, note that "~~10A to 14C~~" should be rewritten as --10A to 10D, 11A to 11D, 12A to 12D, 13A to 13C, 14A to 14C -- for consistency with the drawing

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figures. Page 29, line 5 and page 30, line 7, should "252a" and "252" correctly be --~~251a~~-- and 251--, respectively?

Page 29, lines ~~12, 24~~, note that --(shown in Fig 10A) -- should follow "~~251~~" and "~~1~~", respectively. ^{Pa} Page 30, line 20, note that "RIE" needs to be strictly defined. Page 30, line 24 and page 31, line 6, note that --(shown in Fig. 11A)-- should follow "~~253~~" and "~~1~~", respectively. Page 31, line 10, note that --(shown in fig. 11D)-- should follow "~~254~~". Page 32, line 12, note that --(shown in fig 12C) -- should follow "~~256~~".

Appropriate correction is required.

The disclosure is objected to because of the following informalities: Note that all of the reference labels appearing in any particular drawing figure should be correspondingly described in the specification's description of that drawing figure. Examples include: Fig. 3A (13, 22); fig. 5C (32, 33); fig 10C, 11B, 11D (211); fig. 11A, in it's entirety; figs. ~~15, 16 (307, 308, 313, 314, 315)~~; etc.

Appropriate correction is required.

The use of the trademark Duroid (~~p15, 1.1; p27, 1.10; p36, 1.21~~); Teflon (~~p 24, 1.1~~) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

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The drawings are objected to because of the following: In figs. 1, 2B, 2C, 3A, 3B, 4, 5B, 5C, 6A, 6B, 9, 10A, to 10D, 11A to 11D, 12A to 12D, 13A to 13C, 14A to 14C, for the cross-sectional views therein, note that proper cross-hatching for all dielectric material should be provided; In fig. 5C reference label ~~--34a--~~ is needed; In fig. 12B, reference label ~~--218A--~~ is needed; In fig. ~~12D, 14B,~~ reference label ~~--1--~~ is needed; In fig. 13B, reference label ~~--258--~~ is needed. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following claims have been found objectionable for reasons set forth below:

In claim 1 at all occurrences, note that "formed" should be respectively rewritten as --disposed-- for a better characterization.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Shigaki or Tozawa.

Note that each reference discloses a ground plane layer (3 in Shigaki; 12 in Tazawa) upon which a dielectric layer (1 in Shigaki; Er Eo in Tozawa) is disposed. A signal line (2 in Shigaki;

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16 in Tozawa) is disposed on the dielectric layer and includes a narrow lower conductive portion (e.g. 2a in Shigaki) and a wider upper portion (e.g. 2b in Shigaki).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakajima in view of either Tozawa or Shigaki.

Nakajima discloses a transmission line circuit having ground plane (4) with a dielectric layer (2) disposed thereon and a conductive layer (3) disposed on dielectric layer (2). Underlying the ground plane is a sem-insulating substrate (1). Nakajima differs from the claimed invention in that the claimed conductor configuration is not disclosed by Nakajima.

As described above Tozawa and Shigaki respectively disclose the claimed conductor configuration within the context of a transmission line arrangement.

Accordingly, it would have been obvious to have realized the conductive layer (3) Nakajima to have the claimed configuration.

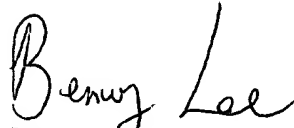
Such a modification would have been an obvious substitution of art recognized conductive layers where the specific configuration would have imparted to the Nakajima transmission line the advantageous benefit of improved and impedance characteristic afforded by such a configuration, thereby suggesting the obviousness of such a modification.

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With respect to claims 3, 4, use of a (strontium) titanium material oxide would have been an obvious selection of desired dielectrics especially since Nakajima's silence on a preferred dielectric material would have suggest that any equivalent dielectric material would have been usable therewith.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Saski et al pertains to conductors of varying width. Hara pertains to a spiral inductor for a MMIC.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number (703) 308-4902.


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817

B LEE/pj

11/26/02